

Title (en)

METHOD FOR ANALYSING AN OBJECT BY X-RAY DIFFRACTION

Title (de)

ANALYSEVERFAHREN EINES OBJEKTS DURCH RÖNTGENBEUGUNG

Title (fr)

PROCÉDÉ D'ANALYSE D'UN OBJET PAR DIFFRACTION X

Publication

**EP 3185003 A1 20170628 (FR)**

Application

**EP 16206499 A 20161222**

Priority

FR 1563317 A 20151224

Abstract (en)

[origin: US2017184518A1] The invention is a method for analysing an object by x-ray diffraction spectroscopy, in which a spectroscopic detector comprising a plurality of adjacent pixels is placed facing an object irradiated by an x-ray beam. Each pixel is able to acquire an energy spectrum of radiation elastically scattered by the object, the radiation propagating in a direction making an acute angle to the propagation direction of the collimated beam. The method allows, on the basis of each measured spectrum, a nature of the materials composing various portions of the object to be determined.

Abstract (fr)

L'invention est un procédé d'analyse d'un objet par spectrométrie de diffraction X, en disposant un détecteur spectrométrique, disposant de plusieurs pixels adjacents, face à un objet irradié par un faisceau de rayonnement X. Chaque pixel est apte à acquérir un spectre en énergie d'un rayonnement diffusé par l'objet, selon une diffusion élastique, le rayonnement se propageant selon une direction formant un angle aigu par rapport à la direction de propagation du faisceau collimaté. Le procédé permet, à partir de chaque spectre mesuré, de déterminer une nature des matériaux composant différentes parties de l'objet.

IPC 8 full level

**G01N 23/20** (2006.01)

CPC (source: EP US)

**G01N 23/20025** (2013.01 - US); **G01N 23/20091** (2013.01 - EP US); **G01N 23/2076** (2013.01 - EP US); **G01N 2223/316** (2013.01 - US)

Citation (applicant)

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- WO 2016001536 A1 20160107 - COMMISSARIAT ENERGIE ATOMIQUE [FR]
- WO 2014045045 A1 20140327 - UNIV MANCHESTER [GB], et al
- MONTEMONT ET AL.: "Studying spatial resolution of CZT detectors using sub-pixel positioning for SPECT", IEEE TRANSACTIONS ON NUCLEAR SCIENCE, vol. 61, no. 5, October 2014 (2014-10-01)

Citation (search report)

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- [XI] EP 2743687 A2 20140618 - ENTECH SCIENT B V [NL]
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Designated contracting state (EPC)

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